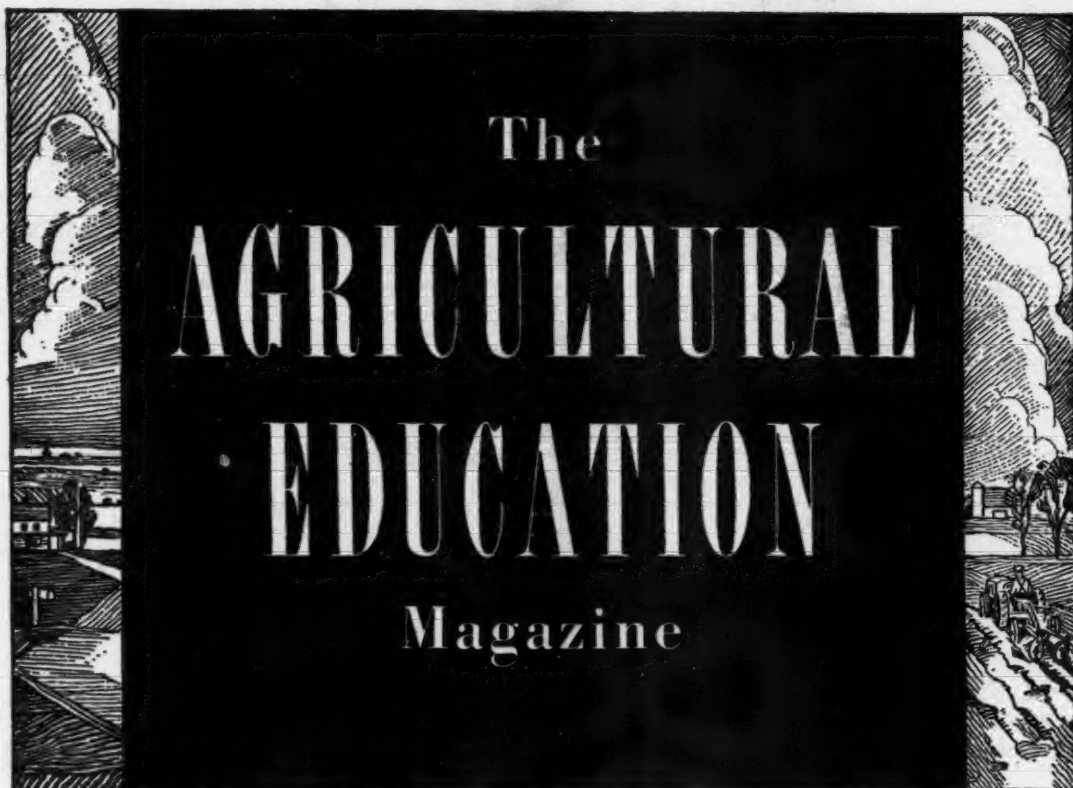


Vol. 17

January, 1945

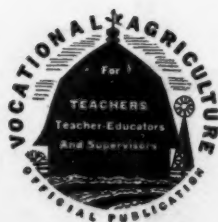


No. 7



*"Superintendent Smith, why shouldn't all high-school teachers be hired as I am, with the understanding that each of them shall teach at least one adult class?"*

Repeat this inquiry each month or so



# The Agricultural Education Magazine

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

## MANAGING EDITORS

W. F. Stewart, Ohio State University, Columbus 10, Ohio.....Editor  
O. C. Aderhold, Athens, Georgia.....Associate Editor  
G. F. Ekstrom, College of Agriculture, St. Paul 5, Minnesota.....Business Manager

## SPECIAL EDITORS

G. P. Deyoe, East Lansing, Michigan.....Methods  
A. P. Davidson, Manhattan, Kansas.....Book Reviews  
S. S. Butcher, Sacramento, California.....Professional  
H. S. Brunner, State College, Pennsylvania.....Professional  
E. B. Knight, Knoxville, Tennessee.....Research  
A. W. Tenney, Washington, D. C.....Future Farmers of America  
C. L. Angerer, Stillwater, Oklahoma.....Farming Programs  
R. W. Cline, Tucson, Arizona.....Farm Mechanics  
Watson Armstrong, Lexington, Kentucky.....Farmer Classes  
W. Howard Martin, Burlington, Vermont.....Farmer Classes

## SPECIAL REPRESENTATIVES

North Atlantic, Henry S. Brunner.....State College, Pennsylvania  
Southern, D. J. Howard.....Richmond, Virginia  
Central, H. M. Byram.....East Lansing, Michigan  
Western, Mark Nichols.....Salt Lake City, Utah

## EDITING-MANAGING BOARD

E. R. Hoskins, New York; D. J. Howard, Virginia; G. F. Ekstrom, Minnesota; Mark Nichols, Utah; O. C. Aderhold, Georgia; H. M. Byram, Michigan; W. T. Spanton, Washington, D. C.; J. A. Guiteau, Washington; Sherman Dickinson, Missouri; Glenn Bremser, Association of Teachers of Agriculture, Pennsylvania.

Subscription price, \$1 per year, payable at the office of the Meredith Publishing Company, Des Moines 3, Iowa. Foreign subscriptions, \$1.25. Single copies, 10 cents. In submitting subscriptions, designate by appropriate symbols new subscribers, renewals, and changes in address. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter January 21, 1929, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

## CONTENTS

When "Peace" Comes to Rural America.....	H. M. Hamlin.....	123
Adult Education, School-Wide.....		123
Engineering Phases of Teacher-Training for Vocational Agriculture.....		124
Our Leadership.....		125
Suggestions for Beginning Teachers of Vocational Agriculture.....	F. E. Armstrong.....	126
What's Wrong With Record Keeping?.....	J. Bryant Kirkland.....	128
Building a Functioning Student Farming Program.....	E. B. Knight.....	129
Community Food Processing in Georgia.....	T. G. Walters.....	130
Developing Farmer Mechanical Confidence.....	J. H. McCallie.....	132
Gripes From an Old-Timer.....	R. A. Power.....	132
Enrollment and Student Mortality.....	Joe Duck.....	133
Report of the North Central Committee on National Contests.....		134
The Future Farmers of America, Incorporated.....	W. T. Spanton.....	136
The Kentucky Future Farmers Co-operative, Incorporated.....	W. R. Tabb.....	137
Banquet Banter.....		138

# Editorial Comment

## When "Peace" Comes to Rural America

ONE day "peace" will come to rural America and we in agricultural education will face a new set of opportunities and difficulties. What will "peace" involve and what can we do about it?

First of all, "peacetime" will not be a period of stagnation or reaction. It may not even be free from physical violence. We are in for a turbulent time. Any desire to return to the status quo will be temporary and it will be frustrated.

We get into wars, of course, because we do not know how to manage our intervals of peace. There is a chance that we may learn to manage the period of peace ahead because we dare not take a chance on another war. Learning to live as we should live in peacetime will be the most stupendous educational undertaking upon which we have ever embarked. It will involve all of us from our cradles to our graves; the wise and the simple, the educated and the uneducated. Every school subject and activity must make education for life in a peaceful world its primary contribution for as many generations as are required for us to learn.

Teachers of agriculture will have a crucial part in educating rural people for peace. While rural people think of themselves as peaceful and peace-seeking, they are as great offenders as others against the peace of the world. Their attitudes toward the other peoples of the world fall too commonly under one of two headings: indifference or contempt. They subscribe all too often to a narrow Americanism. They do not provide in their own communities the conditions which lead to continued peace and they do not set examples which inspire and guide other peace-seekers.

One can see in any rural community all of the seeds of future wars. It is time to quit blaming wars exclusively on other people and to look to the part we ourselves play in starting them.

The peace of the world depends upon unselfish co-operation among all of us. We can further peace by fostering in the smallest community co-operation across racial, class, and economic lines; equality of opportunity for all; and truly democratic procedures.

The teacher of agriculture who wishes to contribute to a peaceful world will first create the right attitudes in himself and then he will exercise all his skill in developing these attitudes in others.

He will go beyond the fundamental job of establishing helpful attitudes. He will have a part in many specific projects upon whose success will depend the contribution of rural America to world stability. He will assist in returning veterans to a useful and satisfying civilian life. He will aid in bringing together the people of his community, town and county, in activities for the common good of all. He will educate the people of his community, young and old, regarding their relationships with the rest of the world. He will help his people to exercise their critical faculties in evaluating attractive slogans and programs which would lead us back to the jungle from which we are just beginning to emerge.

The rural people of the United States can control the foreign policy of the country. Senators elected by rural constituencies comprise more than the one-third of the Senate necessary to defeat any proposal in the field of foreign relations. We face a period when America is likely to hold the balance of power in the world. Are our rural people wise enough and good enough to bear the responsibility for world affairs which they are now assuming?

"The world," said Henry Wallace many years ago, "is all one piece of ground." World peace begins in Podunk. The teacher of agriculture, one of Podunk's most useful citizens, has as much responsibility for world peace as anyone else. Let us find our job in educating for peace and do it as well as we have done the many other jobs which have come our way.



H. M. Hamlin

## Adult Education, School-Wide

OUR cover quotation presents what may be a very earnest concern of nearly every teacher of vocational agriculture—why shouldn't all high-school teachers assist in a program of adult education, make it school-wide, and render a service similar to that of the teacher of vocational agriculture and, in many schools, the teacher of home economics? Perhaps if the teacher of agriculture should repeat the query too often, he would find himself dismissed on the grounds that he was irritating and annoying. Nevertheless the question persists. It is not difficult to think of fields of instruction for adult courses appropriate to the preparation or training of every high-school teacher. Yes, and elementary teachers, if they wish to be included. "Where do our tax dollars come from and where do they go?" What an excellent course for a teacher of civics or social problems! "Come, let's sing," should rally an interested group around the music teacher. "Making our community a better place to live," could be directed by several teachers.

And so, the list grows; English, whether it be faults in grammar or the beauties in literature or a community pageant; mathematics, whether meeting remedial needs or new problems; health and health problems; child care and rearing for young or uninformed mothers. It is not difficult to suggest appropriate areas for any number of courses. All that remains is to study the schedule of community events and arrange an evening each week to be known as Adult School Night. Whether there shall be one or two sessions scheduled each evening is optional. A forum discussion, a movie in the auditorium, or folk games and dancing in the gymnasium could lengthen the evening if desired.

Adult education, school-wide, should result in a better informed community, one more appreciative of education and the schools which provide it, and might very well result in a better faculty and a better equipped school. The idea is not new. It has been attempted with varying degrees of success. In some schools, such school-wide courses, at least to the extent of perhaps half the faculty as teachers, have been in operation. In others, schools conducting four or five adult classes one winter have dwindled away until the only class in adult education is that taught by the teacher of agriculture—just as it was before the bubble grew and burst. A program of adult courses taught by each member of the faculty sounds attractive. It has been tried in some communities. Very rarely has it succeeded to the point of an easy-going, regular adult school feature of a community. Why not adult education, school-wide?

## Honesty in Teaching

A HERMIT is not troubled with questions of honesty. Such questions arise only in social situations, situations in which the rights of others are involved, in which the conduct of an individual is measured in terms of fairness to all parties involved. Teaching definitely is such a situation. Teaching vocational agriculture is doubly so because of the peculiar nature of the job and the variety of situations met involving rights of others.

In fitting livestock for shows do you teach your boys how to win fairly and within the rules, or do you teach the various ways of evading the rules of the show? In registering your purebred stock do you require your boys to observe the regulations, or do you make clear to them how they might take advantage of others who are trusting them to give, for example, the correct farrowing date, or size of litter? In marketing your produce do you teach your boys to respect the standards and meet them fairly, or do you point out how they can "cover up" and hope to "get by" with inferior quality or short measure? On field trips to farm homes is "swiping fruit" and other minor valuables laughed at? Likewise, on long trips involving hotel accommodations, is the taking of accessories from the hotel room permitted? Is "take all you can get away with" your precept and guide? These are a few of the many opportunities which confront any teacher of vocational agriculture to be honest with himself and his boys. How closely do what you profess and what you permit or perform, agree? How honest are you?

## Engineering Phases of Teacher-Training for Vocational Agriculture

A Report of the Subcommittee on Agricultural Teacher-Training, Committee on Curriculums (College Division), American Society of Agricultural Engineers, in collaboration with an Advisory Group of Agricultural Education Specialists, submitted June 22, 1944

THE American Society of Agricultural Engineers has long had a sympathetic interest in the problem of training teachers of vocational agriculture. At the December, 1943, meeting of the American Vocational Association, Dr. W. T. Spanton, chief, Agricultural Education Service, U. S. Office of Education, and A. W. Turner, president, A.S.A.E., discussed the problem of training teachers in agricultural engineering subjects in the light of wartime and postwar conditions. As an outgrowth of these conversations, President Turner appointed a subcommittee of the Society to study ways and means for the better preparation of teachers of vocational agriculture in pertinent agricultural engineering subject matter. In addition, an advisory group of agricultural education specialists was invited to collaborate with the subcommittee in this activity. This report is therefore the result of the joint efforts of these two groups, both of which concur in the recommendations herein set forth.

### Introduction

1 Why study the reorganization of teacher-training in agricultural engineering subjects now?

(a) Many colleges of agriculture are now reorganizing and revising curricula. Teacher-training programs are undergoing changes at this time.

(b) The physical and mechanical aspects of agriculture as a phase of the work of teachers of vocational agriculture have come to be recognized as of growing importance in recent years, particularly in the war period. The importance of adequate training in this area of agriculture will continue to be of utmost significance in the postwar period.

2 Importance of prospective teachers of vocational agriculture in the student bodies of agricultural colleges.

These teachers are prepared almost exclusively in the colleges of agriculture of the land-grant institutions. In the six prewar years (1936 to 1941), slightly over one-third (34.7 percent) of the graduates in agriculture prepared and qualified as teachers of vocational agriculture. From 1,500 to 1,800 new teachers were trained annually. Due to the war situation, it is estimated at this time that there is a backlog of need for approximately 3,500 new teachers of vocational agriculture.

3 Importance of agricultural engineering in the training of teachers of vocational agriculture.

(a) Approximately one-fourth of the high-school vocational teaching time is in this field.

(b) Approximately one-third of 1942-43 Food Production War Training Courses (total, 65,996) are in one phase of agricultural engineering, that is, farm machinery operation, maintenance and repair.

(c) More than 6,000 well-equipped farm shops are available in that number of rural communities. These farm shops constitute the only shop training facilities found in rural areas.

(d) Agriculture is becoming increasingly mechanized, with the result that the farmer is dealing with more power units, machines, equipment, and tools of various kinds.

(e) Teachers are increasingly expected to give attention to phases formerly neglected, such as farm structures, utilities, soil and water management, and rural electrification.

(f) Other phases of agriculture (as agronomy, animal husbandry, horticulture) are implemented by agricultural engineering. These cannot be understood in a practical way without agricultural engineering.

### Appraisal and Recommendations

1 How to get adequate attention to agricultural engineering without interfering with other phases of the education of the prospective teacher.

(a) There are four major technical fields in which the teachers need preparation: (1) Animal industry, including dairying and poultry; (2) plant industry, including soils and horticulture; (3) agricultural economics, including farm management, and (4) agricultural engineering. Approximately one-fifth of the semester hours devoted to courses in technical agriculture in the four-year curriculum should be allocated as a base for each of the four major technical fields leaving one-fifth of the semester hours for electives in agriculture. This base for each major technical field would provide about 12 semester hours.

(b) Time now given to agricultural engineering could in most cases be better used thru better adapted, more modern and better taught courses.

(c) The job of training prospective teachers in agricultural education does not have to be done entirely

in four years of preservice training. Many students have much experience and good high-school training when they enter college. Summer experience can be directed to give more training. Some things are best taught as a part of in-service training.

(d) Due to facilities and environment some things cannot be well taught at the various colleges. The time available in preservice training is best used in providing information and developing appreciations, understandings, and abilities rather than a high degree of skill.

(e) Some of the skills we have been teaching are better performed by specialists than by farmers, hence may be omitted from teacher-training curricula.

(f) Practice and apprentice teaching can provide important participating experience with many phases of agricultural engineering.

(g) While there will be few immediate gains in this direction, the five-year curricula will provide an opportunity for giving more time to agricultural engineering without interfering with the undergraduate program.

(h) Gradual changes can be made without changing drastically the state certification requirements or requirements for graduation for all who enter teaching.

2 Special courses in agricultural engineering should be provided for prospective teachers.

(a) These should include courses or units dealing with farm shop work, farm power, farm machinery, farm buildings and other structures, rural electrification, farm utilities and conveniences, and soil and water management.

(b) Courses in agricultural engineering for teachers should not be "professionalized" but should be well taught as technical courses. It should not be expected that college students will be taught the same courses they will teach in the high school, using the same methods. However, if good teaching is done, many of the same principles of teaching will be employed. Preparation in the methods of teaching should be provided thru instruction by the department of agricultural education.

(c) Prospective teachers should not take the same courses as prospective agricultural engineers.

(d) Prospective farmers, county agents, and others who do not expect to follow the profession of agricultural engineering will be served equally well by such courses. These groups together with teachers, constitute over 80 percent of the graduates in agriculture.

(e) Courses in agricultural engineer-



ing for teachers should be taught by persons who have a continuing first-hand acquaintance with the work of teachers of vocational agriculture. Opportunity should be provided for technical staff members to have contact with the work of teachers of vocational agriculture thru field work.

### 3 Foundations and sequences of courses.

- (a) Prerequisites to courses in agricultural engineering should be few, if any, and well justified. The general education of the teacher should provide a basic course in mathematics and in physics adapted to students of agriculture to facilitate the instruction in agricultural engineering.
- (b) A course in farm shop work should precede other courses in agricultural engineering.
- (c) Courses in agricultural engineering should be distributed thru the four or five years of the curriculum.
- (d) Teachers of vocational agriculture in the high schools cannot do good work without an understanding of farming as a whole and the relationships of agricultural engineering to an entire farming program.

### 4 In-service training of teachers.

- (a) Changing conditions call for new types of training.
- (b) Teachers are motivated to learn what they would not otherwise learn by the situations in which they find themselves.
- (c) There will never be enough time to do the complete job in college.
- (d) Better conditions for teaching certain phases can be found away from the colleges.
- (e) The preservice training of a large part of our present teachers has been very limited. Teachers have shown that they are eager to receive help. Graduate courses, short courses, conferences, publications, and teaching aids should be available to them from departments of agricultural engineering.
- (f) Many persons who are not qualified teachers of vocational agriculture have been used during the war to teach courses in mechanical subjects. Many of these will probably continue after the war to assist regular teachers. These persons can be helped only thru in-service training.
- (g) Graduate work in agricultural engineering: Other devices for training teachers in service do not substitute for thoro and extensive graduate courses in agricultural engineering. Opportunities for graduate work in this field should parallel those in the other agricultural subjects. As teachers of vocational agriculture undertake some of the newer and more difficult responsibilities suggested in this report, they will need courses of a type worthy of graduate credit. Graduate credit should not be claimed for first courses in agricultural engineering for which undergraduate credit is given. Reasonable prerequisites of undergraduate courses should be prescribed for graduate courses.

### 5 Co-operative activities: There are many activities in which the best re-

sults will be secured if the departments of agricultural education and agricultural engineering co-operate. Some of these are as follows:

- (a) Making studies of farmers' needs, current practices, and needs of vocational agricultural departments.
- (b) Evaluating the outcome of instruction in this field on the high-school and college levels.
- (c) Preparing visual and other subject-matter aids.
- (d) Planning courses for high-school and adult classes.
- (e) Planning school shops and facilities.
- (f) Outlining possibilities for farm practices and F.F.A. activities in the physical and mechanical aspects of agriculture.

### Areas of Agricultural Engineering in Which Teachers of Vocational Agriculture Should Be Trained

The following areas of agricultural engineering should be included in the training of teachers of vocational agriculture. Emphasis on the different areas, or sections within an area, will vary somewhat in accordance with local or regional needs. The grouping presented here is considered a logical one, but it may not necessarily be the basis for course organization or arrangement.

- 1 FARM SHOP WORK. Selection, sharpening, care and correct use of shop tools and equipment; woodwork and simple carpentry; sheet metal work; elementary forge work; electric arc and oxyacetylene welding; pipe fitting; simple plumbing repairs; rope work.
- 2 FARM POWER AND MACHINERY. Selection, management, adjustment, operation, maintenance, and repairing (excluding major repairs requiring specialized equipment and services) of farm gas engines, tractors, trucks, and the principal farm machines.
- 3 FARM BUILDING AND CONVENIENCES. Elementary scale drawing and plan reading; farmstead layout; functional requirements of farmhouses, shelters, and storages; water systems; septic tanks and sewage disposal; heating.
- 4 SOIL AND WATER MANAGEMENT. Elementary leveling, land measurement and farm mapping; farm drainage; farm irrigation; terracing, contour farming, strip cropping. (Emphasis on various phases to be varied in accordance with local or regional needs.)
- 5 RURAL ELECTRIFICATION. Utilization of electricity in the home and in productive farm enterprises; selection, installation, operation, and maintenance of electric equipment.

### The Editor's Note

The last section of this report gives the objectives of instruction in all areas of agricultural engineering. This includes a listing of some 10 to 15 specific objectives in each of the major areas of instruction in agricultural engineering. Any reader desiring copies of the complete report should contact the Department of Agricultural Engineering in his college of agriculture or that of an adjoining state.

## Our Leadership

THIS month we present some of our teacher-trainers from various corners of the country.

Professor C. L. Angerer, a member of the Editorial Staff of Agricultural Education, is Head of the Teacher-Training Department in Oklahoma A. & M. College. His previous connections were with the program of Agricultural Education in Missouri. A brief experience on the vaudeville stage convinced him that his life of service lay in other fields. It was Agricultural Education's gain.



C. L. Angerer

The training of teachers in North Carolina is directed by Professor Leon E. Cook. Professor Cook is one of the veterans in the teacher-training field, having held his present position in North Carolina since the early years of the Smith-Hughes Act. He was reared in New York state where he also pursued most of his college training.



Leon E. Cook

Professor J. A. James directs the teacher-training program in the University of Wisconsin. Since 1914 he has been the moving force in teacher education in that state. He is a native of Wisconsin with his training in a teachers' college and the College of Agriculture. He has pursued graduate work at Wisconsin, Columbia and Ohio State Universities. He was a president of the Vocational Education Association of the Midwest, a forerunner of the American Vocational Association.



J. A. James

FROM the pages of "Who's Who in America," 1944 edition, consisting of a review of some 4,500 names, staff members have searched for the names of workers from the field of agricultural education and report the following. Hope we didn't miss you.

Robert Emmett Cammack, Alabama  
Lindley Hoag Dennis, Washington, D. C.  
Albert Martin Field, Minnesota  
Nugent Edmund Fitzgerald, Tennessee  
Ray Fife, Ohio  
Hugh Miller Gardner, New Mexico  
Charles Burt Gentry, Connecticut  
Arthur Kendall Getman, New York  
Raymond William Gregory, Washington, D. C.  
Barton Morgan, Iowa  
Rolland MacLaren Stewart, New York  
Wilbur Filson Stewart, Ohio

# Methods of Teaching

G. P. DEYOE

## Suggestions for Beginning Teachers of Vocational Agriculture

F. E. ARMSTRONG, Teacher Education, University of Hawaii

**M**ANY new teachers of vocational agriculture will be employed this year in every state and territory where this work is offered. Some of these men will be without special training and will be uncertain as to the best approach to their job. It is important, however,



F. E. Armstrong

that each becomes oriented as quickly as possible in order that his work be carried on efficiently.

The state and local authorities on education regard the work of a teacher of vocational agriculture as being among the most important performed by any teacher. They will expect that the teacher of vocational agriculture faithfully discharge all responsibilities connected with his job. He will find that the work is not easy, but he will derive a great deal of personal satisfaction in doing his job well.

The people of the community in which the teacher of vocational agriculture works will look to him for leadership in agricultural matters and in many other phases of community life. Specifically, he is responsible for so training the young men of the community that they will better fit into the vocation of agriculture than they would without such training. Some of these young people will be enrolled in his classes at the school where he teaches, others may receive training thru young-farmer classes he will offer when he becomes established in the community. It is expected that each trainee will become an economic asset to his state and his community and that the instruction he receives will benefit him personally. Another responsibility assumed by teachers of vocational agriculture is for the upgrading of mature workers in the field of agriculture who are farming for themselves or are working for others. This important part of the work of the teacher should be undertaken just as soon as he feels he has sufficient knowledge of the community to do it well.

Several months will be required for the new teacher to become thoroly acquainted with all the details of his job. This article is prepared to assist the beginning teacher in getting off to a good start. He should find it particularly helpful in meeting the many problems that arise in the first few weeks after he reports to his school.

### First Contacts

First contacts are very important because the impressions we leave with a person the first time we meet him are apt to be the ones by which he will always

**Editor's Note:** This excellent article by Professor Armstrong unfortunately appears out of season and at a time when we have so few beginning teachers. Training teachers should place it on the MUST list of readings by future trainees.

judge us. It is important that the teacher of vocational agriculture contact certain persons immediately upon arriving in the community where he will teach and that he create a good first impression. Some of these people are:

1. The superintendent of the school system in which he will teach and the principal of his school. As administrative head of the school, the superintendent should be the first person whom he contacts upon arriving in the local community. He should be prepared to discuss intelligently with him problems in the field of vocational agriculture. It should be remembered that the superintendent is an experienced educator and that he knows a great deal more about the needs of the local community than does the newly appointed teacher of vocational agriculture. His suggestions are valuable. The principal of the school, if different from the superintendent, will also have valuable suggestions as to the operation of the agricultural department. At the first meeting with the superintendent and with the principal, the teacher of vocational agriculture should arrange for a conference at which both will be present, the purpose of which is to discuss the details of the agricultural program. Some of the things to be covered at this later conference are suggested under the In-School Program.

2. The local school commissioners or trustees. It is important that the teacher of agriculture contact each member of this board soon after he arrives in the community. The school commissioners or trustees are the designated representatives of the people in educational matters. They should be kept informed of plans for the agricultural department. Perhaps the superintendent or principal will introduce the teacher.

3. Local supervisors. Many of the states and territories maintain county or district supervisors of vocational agriculture. These men are intimately acquainted with the details of the state plan for agriculture and with the needs of the local community. If one is assigned in the district, the teacher should contact him at an early date.

4. Vocational counselor and pre-vocational teachers. These teachers can give much information about prospective students for vocational agriculture and can greatly assist in selecting desirable boys for the classes.

5. The vocational homemaking teacher.

In some schools the teacher of vocational agriculture and the vocational homemaking teacher exchange classes for a few weeks each school year. They frequently co-operate in conducting out-of-school classes and in staging student functions. Arrangements must be made well in advance.

6. The cafeteria manager. In some states the vocational agriculture department supplies a large portion of the vegetables and other foods used in the school cafeteria. To determine cafeteria needs and to plan the production program for the school farm, the teacher of vocational agriculture and the cafeteria manager must work in close harmony.

7. Other faculty members. The teacher of vocational agriculture will have to live and work with other teachers of the school as long as he remains on contract with this school. He should become acquainted with them, assist them in their work as much as possible without neglecting his own, and obtain their co-operation so that his own work will be made easier.

### Community Contacts

A teacher of vocational agriculture is in closer contact with the people who live in the community than is any other teacher in the school, the superintendent and principal excepted. It is necessary that he take the initiative in meeting certain key individuals and discussing with them problems pertaining to his work. Some states require that the teacher make a survey of local agricultural conditions as a guide in planning his work. The following can assist the teacher in becoming better acquainted and in planning his program.

1. The advisory committee. If the newly appointed teacher of vocational agriculture reports to a school in which agriculture has been taught previously, there may be organized a committee of local people with whom the teacher can consult about his problems. If there is no advisory committee, one should be organized at an early date.

2. Key farmers of the community. These men can be of great assistance to the teacher in becoming acquainted with the community and in organizing his work.

3. Leaders of large-scale farming ventures in the community—ranch and plantation managers, foremen, overseers, supervisors.

4. The county agent, or agents, of the state co-operative agricultural extension service.

5. The 4-H Club leader, if different from the county agent.

6. Representatives of the state agricultural experiment station. There may be no person representing the experiment station who lives in the community, but if there is, he should be able to make valuable contributions to the program.

7. Representatives of the state board of agriculture and forestry, if one resides in the community.

8. Representatives of the Farm Security Administration.

9. Leaders of local business organizations, particularly those catering to the needs of farmers.

10. Former students of vocational agriculture, especially those holding state or national degrees in the Future Farmers of America.

11. Teachers of vocational agriculture in neighboring schools.

In making community contacts, it is wise for the teacher of vocational agriculture to refrain from criticising local agricultural practices. Because of his limited experience with community affairs, such criticism is very much out of place. After the teacher has become an accepted member of the community, he may begin work upon those agricultural problems which need to be improved and which come within his province.

#### In-School Program

If the teacher is reporting to a school that has in operation a program of all-day classes in vocational agriculture, it is important that he familiarize himself with details of the program. If assigned to a school in which agriculture has never been taught before, he should familiarize himself with the plans that have already been made by local and state educational authorities for putting this work into effect. Such of the following suggestions as apply to the situation in the school where he will teach should be carried out.

1. Obtain from state or district supervisor bulletins or other material describing state plans for all-day classes in vocational agriculture. Formulate plans for all-day classes in the local community in such a way that they will receive approval of state authorities.

2. As soon as convenient after his arrival the teacher should ask for a conference with his superintendent and principal to discuss:

a. Instructions he has received from state or district supervisor for vocational agriculture.

b. The curriculum in vocational agriculture as offered, or as it is to be offered, in the school.

c. Ways of selecting students who are to enroll in all-day classes in vocational agriculture.

d. Room or rooms assigned to the vocational agriculture department.

e. His teaching schedule.

f. The project program carried by former students of vocational agriculture. The person who taught agriculture in the preceding year can be of great help in this matter. Consult him if he is available.

g. The school farm, if there is one.

h. Such other points as he, the superintendent or principal may care to cover.

3. Check to see that all items carried on the school inventory and charged to the department of vocational agriculture are on hand or are properly accounted for.

4. If vocational agriculture was taught previously in this school, familiarize himself with long-time plans and teaching plans prepared by the former teacher. The plans may need revising, but this should be attempted only after careful study of the local situation.

5. Familiarize himself with the supervised farming programs carried by former students of the department of vocational agriculture. This suggestion applies to all types of supervised farming programs: individual, group or class; and

to productive enterprise projects, improvement projects, supplementary farm practice, or placement for farm experience.

6. Acquaint himself with the system of filing references, both student and professional. Check to see that the supply of reference material is adequate for the work to be done. Order such additional material as may be needed.

7. Meet the officers of the local F.F.A. Chapter, if a chapter has been organized in the school. Check to see that all chapter equipment is available and that chapter accounts are in order. Study the chapter's program of work. Have a strong program prepared if the existing one is inadequate to meet the chapter's needs. If no chapter exists, plan to organize one at an early date.

8. Thoroughly acquaint himself with the work being carried out on the school farm. Make changes only after it is certain that the changes will work for greater efficiency or for improved learning.

9. Check to see whether an adequate supply of all needed report forms are available. Order needed forms from the district or state supervisor. Prepare and send to the proper official all report forms when due.

10. Familiarize himself with such other duties as may be assigned him by the superintendent, principal, or supervisor.

#### Out-of-School Program

A complete out-of-school program will include adult-farmer classes for mature agricultural workers or farmers, young-farmer classes for out-of-school rural youth who have not yet entered farming on their own responsibility, and food production or training classes for out-of-school rural or nonrural persons over 17 years of age. If any part of the program is in operation when the new teacher takes over his responsibilities, he will be expected to continue with it. If no such program is in operation in the school, he will be expected to organize and operate needed phases as soon as he has become acquainted with the community. To prepare himself to handle this work, the new teacher should:

1. Obtain from state or district supervisor such material as is available describing state plans for this work. Study the plans so that he can formulate plans for the local program.

2. Consult with his superintendent, principal, supervisors, advisory committee, farmers, and local leaders as to the need for such training and ways and means for carrying it on.

3. Visit other teachers of vocational agriculture who have successfully organized and given this type of work. See a class in operation if possible. Get all possible pointers from the class leader.

4. Read as many professional references dealing with this type of work as time permits.

If the new teacher of vocational agriculture is to teach in a school where vocational agriculture has been offered previously, he should make every effort to contact the retiring teacher. This man can do more towards getting the new teacher oriented to the community and in explaining the program as it operated than can any other person or organization, but sometimes he cannot be reached. In any event, the teacher who "gets off to a good start" has gone a long way towards making a success of his work.

## Preserving Insect Specimens

GLENN BRESSLER, Teacher,  
Holidaysburg, Pennsylvania

ONE of the most helpful "tricks" picked up during my teaching experience is the following liquid preservative for insect specimens.

Alcohol, 95% solution . . . . . 150cc  
Commercial formalin . . . . . 50cc  
Glacial acetic acid . . . . . 15cc  
Water . . . . . 250cc  
Glycerine . . . . . a few drops

It is best to make a quantity of the solution for it will not deteriorate if kept in a closed container. 9cc and 17cc glass vials closed with cork stoppers have been found to be very satisfactory since they will hold most of the kinds of insects to be preserved.

For convenience in handling these vials, a small wooden rack can be made by cutting two pieces of white pine  $\frac{1}{4}$ -inch thick, three inches wide and 12 inches long. One board is placed above the other and kept in place by strips one inch square placed at each end. Lathing nails or brads can be used to nail the strips in place. Holes just large enough to let the vials pass thru are drilled thru the top board; the bottom board will serve as a base. Vials filled with the liquid preservative are placed in this rack and are carried along in the car at all times, or at least during field trips and project supervision, for at these times many insects in various stages of development will be found. When an insect is found it is simply dropped into one of the vials. No special killing process is necessary for the liquid preservative does the whole job. The specimens will retain their natural color. The glycerine in the solution will tend to keep the insect from becoming brittle. If in the course of time some of the preservative liquid evaporates, more should be added to keep the insect covered. It is desirable that the name of each insect be placed on the outside of the vial or written on a narrow strip of paper with pencil and placed on the inside of the vial. Filled vials should be well organized in the classroom so they are easily available for use in class-work.

This method of collecting and preserving is simple and requires very little time. For teachers of agriculture it is much more satisfactory than the traditional method of "pinning" or "Riker Mounts."

## 240 Boys Earn Firestone Awards

Purchases of purebred livestock, improved grains, and new equipment totaling \$25,000 are being made this year by approximately 240 members of the Future Farmers of America who are sharing in cash awards provided by the Firestone Tire and Rubber Company to aid youthful farmers in improving agricultural production.

Winners of the Firestone awards are those members of the F.F.A. who have been elected "State Farmers," the highest state degree offered by this national farm youth organization. In each state, selection is under the direction of the state supervisor of agricultural education.



# Farming Programs

C. L. ANGERER

## What's Wrong With Record Keeping?

J. BRYANT KIRKLAND, Teacher-Trainer, University of Tennessee,  
Knoxville, Tennessee

WHILE making a supervisory visit with a teacher of vocational agriculture during the summer, a student was asked what enterprises were included in his farming program. His reply was, "I have a sow and litter, four acres of corn and one acre of cotton. I own a dairy cow, too, but she is not included in my farming program."



J. B. Kirkland

Upon questioning the student further, it was learned that he did not regard the dairy cow as a part of his farming program because he did not want to keep records on the enterprise.

There are doubtless many other students of vocational agriculture who own enterprises that are not included in their farming programs for similar reasons. This attitude exemplifies a lack of an understanding of what a farming program is, what its purposes are and the value of records in attaining these purposes.

It would seem that after 25 years of vocational education in agriculture many of the farmers and farm youths who were enrolled in vocational agriculture would have developed the attitudes and understandings necessary to keep and utilize farm records as a means of increasing their efficiency in conducting the various farm enterprises. If, however, we were inclined to be realistic enough to determine the percentage of former students now farming who have kept and utilized farm records as a result of the instruction in vocational agriculture, the findings would most likely be disappointing. One might rightfully raise the question, "What's wrong with farming-program record keeping?"

### Some Causes of Poor Records

The unfavorable attitude of all-day students toward records and the failure to keep accurate records on their farming programs may be attributed to the following causes:

1. Some teachers do not appreciate the value of records as a means of teaching students how to increase their farming efficiency.

2. In many cases teachers do not have an adequate knowledge of how to keep and utilize farm records.

3. Teachers tend to teach students how to keep a given record book instead of how to keep farm records.

4. In some schools the record books selected are too complicated or are not adequate to enable students to keep

complete records.

5. An attempt is made to teach students how to keep records or how to use a given record book before the need arises for such instruction.

6. Teachers permit students to conduct enterprises for too long a period before teaching them the need for and method of keeping records.

7. Provision is not made for students to enter records in the farming-program record book at regular intervals.

8. The records are not checked by the teacher shortly after being entered in the student's record book thus encouraging inaccuracies and omissions.

9. Teachers fail to utilize records of former students to aid present students in selecting enterprises to include in their farming programs.

10. Teachers fail to teach students how to summarize and analyze records as a means of increasing their efficiency in conducting continuation enterprises.

### Suggestions for Improvement

There can be no panacea prescribed that will cure all the ills of this perennial and perhaps universal malady. Each teacher should attempt to diagnose his own case and make whatever adjustments should be made to prevent a further spread of this unwholesome condition. There is no substitute for the teacher's ability to keep and utilize some accepted system of farm accounting. This knowledge, however, will bring the desired results only when the teacher has an appreciation of the value of records. Boys must be led to realize that records on farming programs are an essential part of their farming programs and not something extra that is superimposed by the teacher.

The following suggestions are offered to teachers for improving record keeping by all-day students:

a) Utilize the summaries of records of former students in helping newly enrolled students to determine the economic possibilities of certain enterprises and to aid them in making an estimated budget of expenses and receipts of the enterprises selected.

b) Immediately after newly enrolled students have started an enterprise they should be taught how to keep the necessary records (labor, cash, beginning inventory) involved in conducting the enterprise. Teach only those phases of record keeping that are needed by the students at the particular stage of the development of the enterprises. Postpone teaching students how to make the closing inventory and summarize the records until the end of the production cycle or the fiscal year.

c) Have regular dates for students to post labor and cash records in their

record books. It is advisable to devote a portion of a class period to this activity every two to four weeks. If the teacher will check each record book shortly after the entries are made and provide an opportunity for the students to make the necessary corrections, the number of omissions and inaccuracies can be materially minimized.

d) Do not postpone having the students summarize and analyze records of all enterprises until the end of the calendar year. The analysis of enterprises that are completed by the end of the school term such as broilers, or during the summer such as Irish potatoes, are of more interest and value to students if made as soon as feasible following the completion of the enterprise, than if made at the end of the calendar year or just before the teacher submits his annual report on farming programs to the state supervisor.

e) Lead the students to analyze the records in order to determine how efficiently each enterprise was conducted and to determine what jobs should be studied further in order to increase the efficiency of the enterprises in the future. This is the most valuable phase of record keeping and will do much to cause students to develop an appreciation of records as well as a recognition of the need for complete and accurate records. Helpful suggestions on analyzing records may be had by reviewing articles in recent issues of *The Agricultural Education Magazine*.<sup>1</sup>

### Southern Region Project Book

"Plans, Records and Accounts for Supervised Farming in Vocational Agriculture,"<sup>2</sup> as revised by the Record Book Committee for the Southern Region, was prepared to aid students in keeping records more accurately and to encourage them to utilize records more effectively. The book provides adequate space for the student to incorporate the plans for doing the jobs in each productive enterprise, the supplementary farm practices and improvement projects, to keep a detail record of labor, to enter all items of expense and receipts, to record the beginning and the ending inventories, and to make a financial summary of each enterprise. Space is also provided to enable the student to list the efficiency factors, to record the principal production practices used, and to list the jobs or practices which he should study further to increase the efficiency of each enterprise in the future.

Even tho the committee could not design a record book that would meet the needs of all students, it appears to have suggested a plan to minimize the ills of farming program record keeping.

<sup>1</sup> SWEANEY, H. P.—"Determining Educational Needs of Students Through Analyses of Project Records," Vol. 17, No. 3, pp. 48-49.  
NEWPORT, W. Leslie—"Analysis of Hog Project Records," Vol. 15, No. 12, pp. 228-29.  
BENDER, Ralph E.—"An Analysis of Swine Production Records," Vol. 15, No. 4, pp. 66-67.  
<sup>2</sup> Published by Wm. Welch Manufacturing Company, Chicago, Illinois.



# Building a Functioning Student Farming Program

E. B. KNIGHT, Teacher Education, University of Tennessee

**E**VEN tho the principal essentials of the farming programs of all-day students have been decided there still remain a number of important details which must be worked out either before or after the program is put into operation. Foremost among these items are (1) the preparation of job plans, (2) proposals for program revision and expansion and (3) the maintenance of student interest. In regard to these three topics a study was made of the procedures and practices followed by Tennessee teachers of vocational agriculture as they guided all-day boys in these important details of program construction. (Data from 171 teachers constitute the basis for this article.)



E. B. Knight

plans be prepared prior to job performance.

Inquiry was also made as to whether the job plans told (a) how the jobs were done at home, (b) how they should be done or (c) how the boy will really do them. Fifty-one percent of the instructors stated that student plans showed "how the jobs will be done" while 14.0 percent said "how job should be done." An additional 21.1 percent gave combination answers.

## Program Expansion and Revision

Presumably the youth's farming program commences on a modest scale and gradually increases in scope and complexity as he progresses in vocational agriculture. Some students expand their programs on their own initiative; others are content to follow the same setup unless urged by the teacher. Table II is primarily concerned with the latter group of boys in that it reports devices used by Tennessee teachers as they encouraged the building of farming programs.

Class analysis of programs, publicity, stressing money returns and individual encouragement were named with greatest frequency by the group furnishing data. The very fact that the three supervisory districts differed widely with respect to the devices employed is interesting, indicating as it does that there are no stereotyped means of encouraging the building of student farming programs.

Farming is a dynamic occupation. As such it calls for revision of plans as conditions change. If boys, thru vocational agriculture, are preparing for farming, it follows that periodically they must revise their farming program plans. Granting this, it is pleasing to note that Tennessee teachers arrange for program revision (a) whenever the student desires

(44.4 percent), (b) periodically during school year (28.7 percent), (c) late in second semester (7.6 percent), (d) early in first semester (6.4 percent) or (e) at miscellaneous times (10.0 percent).

Boys frequently need help as they conduct and revamp their farming programs. Part of this aid is given during the instructor's farm visits, but much must come from in-school contacts. In general, the participating teachers indicated they depended on either individual instruction during class periods or special conference periods as they sought to assist students with personal farm enterprise problems.

## Maintenance of Student Interest

Like all human beings, students of vocational agriculture exhibit varying degrees of interest in their farming programs. Consequently, most teachers find it necessary to use various devices to retain youth interest at a satisfactory level. The items so employed by Tennessee instructors are ranked below together with their frequency of mention.

1. Opportunity to make money—(57)
2. Comparison of programs—(42)
3. Visits to projects, trips—(38)
4. Fairs, contests, exhibits, prizes—(35)
5. Stressing personal benefits—(24)
6. Publicity, pictures—(22)
7. Advanced F.F.A. degrees—(19)
8. Ownership—(16)
9. Praise, commendation—(16)
10. Class discussion—(12)

It is apparent a diversity of devices are available whenever the teacher of vocational agriculture strives to maintain a high degree of student interest in youth farming programs. No doubt the personality of the individual is an important factor in determining the method to be used.

## Summary Points

(a) Three-fourths of Tennessee teachers of vocational agriculture insist that all-day students prepare job plans before actually doing jobs which are a part of their farming programs.

(b) Evidently only a scant majority of the job plans prepared by students tell *how the job will be done*.

(c) Class analysis, publicity, money returns and individual encouragement are widely employed by teachers as devices for promoting the building of student farming programs.

(d) Rather universally Tennessee's instructors provide opportunity for students to revise their programs. Individual instruction during regular class periods or conferences held at set periods are generally utilized for this purpose.

(e) A large variety of means is available to teachers endeavoring to maintain a satisfactory level of student interest in farming programs. Among the methods used most frequently by Tennessee teachers of vocational agriculture are: (1) informing the youth of his opportunity to make money; (2) taking him on observation and demonstration trips, (3) encouraging him to compete with other students, (4) providing publicity of various types and (5) stressing the significance of advanced degrees in the Future Farmers of America.

(f) By skillfully adapting procedures to the student's personality the teacher can facilitate the building of a functioning student farming program.

TABLE I. Period When Students Prepare Job Plans

Period of year	Percentage of teachers reporting			
	State	East Tenn.	Middle Tenn.	West Tenn.
Before job is done	37.4	36.7	38.2	37.5
By end second semester	24.0	26.7	25.5	19.7
Seasonally	19.2	18.3	18.2	21.4
At start of project	9.4	3.3	14.5	10.7
During first semester	9.4	13.3	3.6	10.7
No reply	0.6	1.7	—	—
Totals	100.0	100.0	100.0	100.0

TABLE II. Devices Used to Encourage the Building of Student Farming Programs

Device used	No. of times item was named			
	State	East Tenn.	Middle Tenn.	West Tenn.
Class analysis	54	11	19	24
Publicity	53	24	18	11
Stressing money returns	40	16	11	13
Individual encouragement	37	14	11	12
F.F.A. degrees	28	18	6	4
Urging long-time programs	28	15	6	7
Visitation, trips	22	7	12	3
School marks	16	13	1	2
Prizes, awards	12	6	3	3
Miscellaneous	16	12	3	1

WATSON ARMSTRONG

# Farmer Classes

W. HOWARD MARTIN

## Community Food Processing in Georgia

T. G. WALTERS, State Supervisor, Athens, Georgia

**T**HE Georgia Community Food Processing Program is not just a War Emergency Program. It has been developing over a period of 18 years. Its rapid growth started in 1930, '31, and '32 as a fundamental aspect of the Live-At-Home Program. In 1943 the war and the OSYA Program stimulated the already functioning community processing program by providing assistance in instruction and in the purchase of equipment.



T. G. Walters

### Why the Program Started in Georgia

There must be a reason for a program to continue to grow in popularity. A few reasons are given which have caused our program to succeed and which must be given consideration in other states if the Community Canning Program is to continue successfully after the present emergency.

1. Why did the program start in Georgia with teachers of vocational agriculture? Teachers of vocational agriculture believed that a functioning program must be built around the real problems of the people in the area served. Providing an adequate food supply, including food preservation, was, and still is, one of the biggest problems of the average farm family in Georgia.

Food ranks first in the cost items of the average Georgia family. This problem of providing food is made more acute by the fact that we have a low farm income. In 1929 the per-capita farm income for Georgia was \$147.00; in 1932 it was \$74.00. Thus it is not possible to purchase an adequate food supply along with other necessities from the income of the average Georgia farm. So, the big problem was to instruct farmers in producing and conserving food for the families and thus to conserve the farm income for other items that cannot be produced on the farm.

2. How did the teachers of agriculture get farmers to think about this problem? For 15 years, practically every teacher of vocational agriculture has taught evening classes on a Live-At-Home Program. These classes have stressed dietary needs, food budgets, kind and amounts of vegetable crops to grow for food supply, kind and amounts of fruit crops to grow for food; kind and amounts of animal products to produce for food; kind and amounts of grain to produce for family food and what amounts of different foods to can to meet the needs of the farm family. If the teacher did a good job of teaching the Live-At-Home Program,

decisions were made and carried out by the evening class members on providing an adequate food supply.

3. Why was the community canning plan used? Prior to the start of the community canning idea, we left this important job of food preservation to the housewife who did the best she could. But after she had worked almost day and night canning snap beans, for instance, she had only a few cans compared to the family needs, and to her sad regrets, many times these beans spoiled.

The best way to get people to do something about a problem is to get them to recognize that they have a problem; to get them to want to do something about it; and to lead them to make sound decisions. This problem led teachers and school boards in Georgia to experiment with the idea of providing canning equipment on a community basis rather than trying to get individual families to provide their own equipment. In other words, a real functional Live-At-Home Program must go beyond the talking stage. It must continue until the job is done. It must include training on a doing basis. Teachers cannot teach food preservation without facilities. Therefore, if teachers of vocational agriculture are to be a real factor in a community educational program, they must be able to put into operation a program which will directly effect the living standards of the people of his community.

### How the Program Started in Georgia

The first canning done in Georgia on a community basis was in the Line Com-

munity, Franklin County in 1926 by J. L. Gilmore, teacher of vocational agriculture. Mr. Gilmore rigged up a saw-mill boiler, using it to heat water in a series of barrels where the processing was done. This equipment was placed on the school grounds. Mr. Gilmore's purpose was to attempt to increase the farm income by providing facilities for farmers to can their surplus vegetables for sale. Selling the goods did not prove very satisfactory. However, farm families did have more food to eat that winter as a result of the efforts of the teacher of agriculture.

The next year another teacher in an adjoining county, attempted to do something about the problem of "low farm income" by securing a small retort and a steam boiler which was set up at a spring some distance from the school. These early canning adventures were crude, but the fire was kindled which has spread thruout Georgia.

### Growth of the Program in Georgia

The program began to gain momentum in 1930, '31, and '32. If you will recall, these were years when farm incomes were very low. School officials had very little money to purchase equipment; in fact, many teachers failed to get their pay when due. Our teachers did not let this dampen their enthusiasm, but believed that preserving food was one of the best jobs they could teach their people. In most instances, teachers were able to secure assistance to purchase a sealer and a retort. In many cases this equipment was hauled in the teacher's car from one evening-class center to another. A brick furnace was built to heat the retort. Some of the early canning was done out in the open, usually near the well at the school building. Farm families came to the

### CANTON, GEORGIA, SCHOOL COMMUNITY CANNING PLANT



Last year 1,043 families conserved 172,400 pints of fruits, meats and vegetables in this school and community plant. It would be difficult to estimate the value of this volume of food to the health of the families and the increased economy in living.

school bringing with them wood for the furnace, products to be canned, and the necessary small equipment such as pans, knives, etc. The teacher usually carried in his car several boxes of tin cans and sold them to the farmers at cost.

From this point the program gained in popularity and school canning plants began to spring up. By the end of 1932 many canning plant buildings had been built on the school grounds, financed by local or county boards of education, P.T.A.'s, civic clubs, and Future Farmer Chapters. In 1938 Georgia had 157 community canning plants. In 1942, over 380 plants, and this summer we have 450 or more plants under the supervision of vocational teachers.

In 1942, before we had any assistance from the OSYA Program in Food Processing, 49,952 Georgia farm families canned 9,848,309 pints of fruits, meats, and vegetables in community school plants. In 1943, 69,074 families canned 13,409,592 cans of fruits, meats and vegetables in our school plants.

The growth of the Community Canning Program has been consistent with the increase in the number of teachers and the increase in departments of vocational agriculture.

#### Why the Program Has Grown

Surely there must be a reason why this program has expanded to 450 school canning plants and a number of canning buildings under construction at this very moment. The popularity of this program with our people may be attributed to the following:

1. A better year-round food supply can be provided.
2. Products can be canned easier and faster.
3. Equipment is available which cannot be provided on an individual family basis.
4. Opportunity is provided to make social contact with neighbors.
5. Trained teachers to give systematic instructions are furnished.
6. The cost is low.
7. A small percentage of products is lost from spoilage.
8. Confidence in vocational teachers is gained.
9. The entire family usually participates in canning the food supply.

#### The OSYA Program

So far I have merely mentioned the OSYA Program. I have had a reason for this. I wanted to tell you about the program mainly before assistance was made available thru the FPWT Program. As a result of the OSYA, we have greatly expanded our facilities. School boards have built many new buildings to house canning equipment. We are equipped to do a much better job of training farm families and are reaching a larger number than before this program was made available. We are using the OSYA to expand and reach more people, but have not changed our policies of giving instructions in planning, producing, and processing food in community canning plants.

#### How Community Canning Is Done

In order that the objectives of this program may be reached, it is necessary to use good procedure in organizing the groups and in teaching them. It is agreed that good instruction should be used in

## HAVE YOU A FREEZER LOCKER PLANT IN YOUR COMMUNITY?



In this vocational locker plant in Newton, Georgia, smoked meats are stored and fresh meats, fruits, and vegetables are frozen. Note that W. C. Mills, Teacher, is trying to interest Regional Agent Clements in the bone while the latter indicates his preference for the meat.

all aspects of the program.

For instruction the people are divided into groups depending upon the number of teachers available, the size of the plant, and the kind and amount of equipment available. Usually two days per week during the rush season are allowed each group.

As the people can in the plant, instruction is given by the teachers who lead them to make good decisions on such problems as when to harvest and the kind of products to can, as well as leading them to develop proper skills and understanding in doing the operations while in the plant.

To provide systematic instruction in the plant, the patrons are given instructions on how to go thru the plant, how to divide the products, amount to can, and what assembly line to get in.

When the persons have been taught and the products have been canned, they check with the clerk, pay the bill, and take the products home.

Empty cans are usually on hand at the plant. School boards keep them in sufficient quantities for the patrons. A canning fee of 1½ to 2½ cents per can is usually charged to replace worn out equipment, to make repairs, and to pay for coal, water, etc.

#### Training Program for Teachers

This problem of preserving food in community centers requires a good pre-service and a sound in-service training program. The training program on the campus and in the field must help teachers to become proficient in the philosophy that they should have, in the skills of food preservation, and in the skills of teaching family members to process food.

During the pre-service training at the college of agriculture, prospective teachers of vocational agriculture and home economics receive instruction in how to can, freeze and dehydrate food. For this the college has a plant equipped like a community plant. At the same time prospective teachers receive professional

training in how to organize groups for teaching and how to teach patrons in community plants.

The in-service training program includes short courses, clinics, and personal supervision in both the professional and the technical aspects of teaching.

Without a good training and supervision program such ills will develop as: (1) inadequate buildings will be constructed, (2) poor arrangement of the equipment will develop, (3) drainage systems will be poor, (4) poor canning techniques will be taught, (5) teachers will not be up to date on latest research findings, and (6) poor procedure of instructing patrons will be used.

This program is large enough to require one or two competent canning and refrigeration engineers, a full-time building engineer, technical help from the college in food processing, subject matter specialists capable of providing teaching materials in food processing, in addition to the regular staff in teacher-training and supervision.

Last spring a series of canning clinics was held, requiring 26 days to reach all teachers. Each vocational teacher in Georgia had a two-day course on "How to Improve Our Canning Program." New techniques are being developed and we intend to be on the alert to see that our teachers have the latest information in food processing. Thus, this teaching job is a continuous one both from the standpoint of training teachers and of teachers training farm families.

During the summer months one or two members of the teacher-training staff visit plants for the purpose of assisting teachers with their problems.

To summarize, this program is giving people an opportunity to "learn by doing." It has been responsible for developing a real community spirit on the part of our people. It gives them an opportunity to come together and discuss their problems and to work with each other. It also gives the people a chance to see what others are doing.



# Farm Mechanics

R. W. CLINE

## Developing Farmer Mechanical Confidence

J. H. McCALLIE, Teacher,  
Englewood, Tennessee

FARMERS frequently lack confidence in their own ability. This is especially true when they are faced with a machinery breakdown which calls for a degree of mechanical skill slightly removed from the ordinary run of farm repairs. Consequently, instead of depending on themselves they often rush pell-mell several miles to the nearest blacksmith shop. There they waste precious hours until the mechanic can get around to their difficulty. In the majority of cases the needed repair could be done quickly by the farmer himself if only a shop and required equipment plus a little morale boosting supervision were available.

Operating upon the principle that farmers acquire both skill and confidence by doing their own work, the local teacher of vocational agriculture, thru OSYA classes and year-round open shops, since 1942 has aided 453 farmers in developing sufficient mechanical ability to keep most of their farm machinery operating without much loss of time. Usually the farmer has a pretty good idea of what is wrong with his implement when he brings it in to the shop. He and the teacher check it over to determine the trouble. Then the teacher shows the farmer how the repair is to be made and starts the job. Gradually the farmer is drawn into the task and shortly the teacher "finds it necessary to leave" with the understanding the farmer will continue. After a while the teacher comes back to see if more supervision is necessary, but does very little additional work. Incidentally, barring emergency repairs, the only farmer criticism of the teacher seems to be that, "once a machine gets into the shop it gets a complete overhaul for he (the teacher) always seems to find something else needing repair or adjustment."

Two farm shops are available on practically a year-round basis in the territory served by the department of vocational agriculture in Englewood High School. One is at the high-school building. This is

always open three nights a week and the teacher is ready at other times to respond to emergency calls. Eight OSYA courses have been held in the period 1942-44. Members of these classes have come as far as nine miles for meetings. Twenty-eight men have worked at one time on various repair jobs in the 24 by 48 foot shop. Most of the heavy machine and hot iron work is done outside. A lighting system has been installed for night work.

### Many Farmers Use Shop

The second shop is maintained at Grudger, a community center six miles from town. Here an old blacksmith shop, rent-free, has been extensively used by 134 different farmers in the last two years. Thru a personal membership in the Fort Loudon Electrical Co-operative, the teacher of agriculture arranged for the installation of electricity, the cost of which is paid by the county. This shop is open each Saturday during the farming season. It is estimated that at least \$1,000 worth of welding jobs, alone, were done there by the members of the last OSYA course. As many as 43 men have worked at this shop in one day.

A wide variety of farm implements and machinery has been repaired and returned to use because of the facilities provided by these two shops. Harrows, disks, drags, cultivators, mowers, wagons, sorghum mills, pumps, tractors, and numerous hand tools have been placed in good working order by the owners. Farmers have learned to analyze their own troubles and to do most of their own work. They have developed skills in iron work and tool sharpening, and have become proficient in the overhauling, repairing and reconditioning of farming and household equipment. Many of the reconstructed machines will give five to 10 years of good service while others, constituting a surplus, have been sold advantageously to both buyer and seller. Indirectly, farmers have acquired a better understanding of the true value of machinery, its lubrication and care.

One way to cement friendly relations with the boss is to advance a few concrete ideas for making money.

## Gripes From an Old-Timer

R. A. POWER, Instructor,  
Viroqua, Wisconsin

IT HAS been my privilege, for some 25 years now, to be one of the 8,000 teachers of vocational agriculture who, I think, have done a pretty good job with what we had to work, as compared to what we are supposed to do. But I think that the most of us feel we could do much better if certain materials and conditions could be changed without disrupting the other departments of the high school. Let me illustrate what I mean.

Many of the technical subjects that we are asked to teach could be taught much easier if we had more appropriate visual aids. Take the matter of teaching some of the essentials of swine production, for example. Wouldn't it be great if we could have a good movie or film strip showing the different steps in castrating, vaccinating, dipping, deworming, etc.? For the movies, have a "close-up" of the more technical procedures and have all the details explained on the sound track. Would not that help in making things plain? Then when a teacher takes his class out to do these jobs, the students would have a much better background, and it would save the teacher, in the limited time that he has at his disposal, a lot of preliminary work. Also, nowadays some teachers do not even get the chance to take their classes out for many of these jobs. In those cases, the boys would still get a pretty fair idea of how to do the jobs.

I would think that there would be sufficient demand for such illustrative material to stimulate someone to produce it, such as the USDA; or perhaps our own Washington office could make arrangements for the production of these educational films. This is just one idea in visual aids. I think that a great deal of improvement could also be made in the wider dissemination of specimens, models, charts, etc. I have had many of my boys voluntarily tell me they learn much more from illustrative material than they do from books or even class discussions.

Then what about our so-called farming programs? Are we really getting a fair chance to put this program across? Many years ago I tried to arrange to have each of my classes on a half-day basis, but the deal fell thru. I still think that we can do more with our boys on the half-day plan than we can on the period basis. For example, the teacher of vocational agriculture could meet several of his boys on the home farm in company with their fathers and work out real farming programs, as well as other improved practices in which both father and son could participate.

Sometimes the curriculum of our high schools makes me wonder. If it is true that only one-sixth of our high-school people go on to college, why should the other five-sixths of the students have to

## HOG HOUSES, SELF-FEEDERS, AND FEEDING PLATFORMS BY THE DOZEN



Twenty-nine hog houses, six self-feeders, and six feeder platforms were constructed by 35 farmers in an FPWT course on building farm equipment at Groveport, Ohio, Franklin D. Miller, instructor

## Enrollment and Student Mortality

JOE DUCK, Supervisor, Jefferson City, Missouri

adapt themselves to this outmoded pattern? My idea of the rural high school is that it should be a training center for the benefit of the majority of the students who attend it; not a college preparatory course for the benefit of a small minority. Over five-sixths of these students will obtain from their local high school about all the formal education they will ever receive. Should they not be taught how to live, as well as taught how to earn a living, during those precious years? I would like to see our high schools just as busy at night as they are in the daytime, only teaching the adults from both rural and urban centers at night. Subjects such as farming, home economics, and political economy would be greatly appreciated by these people. Such a plan might result in a larger teaching force, but when the taxpayers would see what is being accomplished, I question if they would seriously oppose it.

In conclusion, I feel that great strides have been made in the field of agricultural education. But I also feel that we could do a much better job than we are doing if we could have a more closely coordinated program. I believe in putting first things first. I suspect that we are often so close to our work that we can't see the woods for the trees. Common sense, after all, should serve as our guideposts. Perhaps after being in the harness for 25 years, I have become too critical.

### The Editor Suggests

EVERY classroom for vocational agriculture should have above the blackboard, mountings of shades, either new shades of black cloth or old shades painted black with blackboard dressing. One might well be four feet or so wide and on this recorded in chart form a column of feed grains with the appropriate useful data—digestible protein, total digestible nutrients, CHO, cost, and similar facts recorded, all of which except the market price, could be recorded with damp chalk and thus be more or less permanent. The column of prices should be changed every week or two.

On any of the other charts could be recorded, before class time, the experimental data or drawings that may be needed during class but which should not be displayed before the appropriate time in the discussion of the problem. These curtains mounted on rollers practically double the blackboard capacity, they make the teaching more effective, and they add to the ease of conducting the class. If you do not have three or four such roller curtains above your blackboards, give the idea a trial.

Another aid to good teaching is the multiple-leaf bulletin board which consists of three, four, or five boards of any appropriate size, for example 3' square, hung on heavy strap iron which is forged into a round post at the top and the bottom and then these posts inserted into holes in angle irons which have been bolted firmly to the wall. From three to six such "leaves" can be mounted in a 12" or 18" space on angle irons and as they are turned they provide on both sides ample bulletin board display space. Nine square feet to a side; 18 square feet to a leaf; 72, 90 or a 100 square feet in all; enough for all your needs. Construct one, then keep it alive; fill it with timely charts, graphs, tables, pictures, etc.

TEACHERS of vocational agriculture and school administrators know from observation that some boys who enroll in vocational agriculture in the ninth grade do not continue in this department for four years. Is this "mortality" greater than it should be? Is something amiss with the program of vocational agriculture, the teacher, or the F.F.A. program? Is the mortality affected by the productivity of the soil, the type of farming, teacher-tenure, size of school, the teacher, the school administration, or other factors? Since it is impossible to investigate all factors in one study, the purposes of this study are as follows:

1. To determine the loss in enrollment in vocational agriculture from the ninth grade to the twelfth grade.
2. To ascertain if the loss in enrollment from the ninth to the twelfth grade is affected by the geographical section of the state.
3. To determine if the loss in enrollment from the ninth to the twelfth grade is affected by the size of the school.
4. To suggest other possible causes of the loss in enrollment from the ninth to the twelfth grade.

### Source of Data

The enrollment in vocational agriculture was taken from the preliminary reports of teachers of vocational agriculture which are sent to the State Department of Education about October 1. The enrollment of "all boys" was taken from the visitation reports of the high-school supervisors and represents the enrollment near the beginning of the school year. The number of "other boys" was calculated by subtracting the number of "agriculture boys" from the number of "all boys."

One hundred eighty-nine of the 207



Joe Duck

white departments in Missouri were studied. All data were taken from the records for the combined school years of 1941-42. The year 1942-43 was not used because of the possible effect of the war on the enrollment. The data from two years were used because of the alternately large and small nonresident enrollment in the ninth grade which is caused by the practice in rural grade schools of alternating the courses of study in the seventh and the eighth grades.

### Findings

Table I shows that 16,859 agriculture boys and 25,068 other boys were enrolled in the 189 departments for the two years studied. In the ninth grade there were 5,622 agriculture boys, or 33.3 percent of the total agriculture boys. Of 33.3 boys enrolled in vocational agriculture in the ninth grade, 15.8 boys drop out before enrolling as seniors. This is a loss of 47.4 percent of the original enrollment. A study of the enrollment of other boys shows a loss of only 3.3 boys between the freshman and the senior years. This is a loss of 12.5 percent of the ninth grade enrollment and would be larger were it not for the fact that some boys who drop out of agriculture become other boys.

The table shows that 23.1 percent of other boys are found in the twelfth grade. Should vocational agriculture have 23.1 percent of its enrollment in the twelfth grade? Probably not. Many farm boys drop out of school because of the necessity of helping to support the family. A higher percentage of farm boys fail to make passing grades and so drop out of school because of discouragement. It is the author's opinion that nearly all failures to receive credit for school work occur in the ninth and the tenth grades. It should be pointed out here that part of the 23.1 percent of other boys in the twelfth grade were agriculture boys as juniors or sophomores. In other words, the 23.1 percent of other boys in the twelfth grade is increased by agriculture boys who transfer. In consideration of the purposes and objectives of vocational

(Continued on page 135)

TABLE I. Percentage of Vocational "Agriculture Boys" Enrolled Compared With "Other Boys"—Years 1940-41 and 1941-42

Classification	Enrollment in Each Grade									
	9th		10th		11th		12th		Total	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Ag. boys	5,622	33.3	4,679	27.7	3,597	21.3	2,961	17.5	16,859	99.7
Other boys	6,618	26.4	6,282	25.0	6,335	25.3	5,813	23.1	25,068	99.8

TABLE II. Mortality Between Grades—Years 1940-41 and 1941-42

Classification		Grades			
		9th	10th	11th	12th
Number of boys	Agri.	5,622	4,679	3,597	2,961
	Other	6,618	6,282	6,335	5,813
Number boys lost	Agri.		943	1,082	636
from preceding grade	Other		336	53 gain	522
Percentage lost from	Agri.		16.7	23.1	21.5
preceding grade	Other		5.0	0.8 gain	8.2

# Studies and Investigations

E. B. KNIGHT

## Report of the North Central Committee on National Contests

1. The Committee, after a careful study, recommends that following the war a program of educational events, above the state level, be planned in connection with the national gathering of students of vocational agriculture.
2. The Committee also recommends that in setting up such a program the old type of national contests be carefully and thoroly reorganized to be made more educational and to conform more closely to our objectives in vocational agriculture. The new program should be developed gradually in the light of, and patterned after, the more successful educational events of this nature as used in various state and local communities.

Committee  
L. D. Clements, Chairman  
J. H. Foard  
L. F. Hall

### Summary National Contest Study—North Central Region—1944

Question 1. Do you favor the sponsoring of National Contests after the war?

	Yes	No
Supervisors.....	12	0
Teacher-Trainers.....	7	11
Teachers.....	15	2
Total.....	34	13

Question 2. Do you feel that the Contests were satisfactory as last conducted?

	Yes	No
Supervisors.....	0	11
Teacher-Trainers.....	1	20
Teachers.....	5	13
Total.....	6	44

Question 4. Do you favor sponsoring the National Livestock Show after the war?

	Yes	No
Supervisors.....	3	7
Teacher-Trainers.....	5	7
Teachers.....	15	3
Total.....	23	17

### Proposed Objectives of Vocational Agriculture Contests

(Listed in order of importance)

A number in parentheses following an item indicates the number of times the item was suggested

1. An occasion for gathering of vocational agriculture students. Visit college, see good livestock, etc. Break down provincialism and sectional prejudices on part of boys and teachers. (39)
2. Motivation. To stimulate to action the masses of boys enrolled in vocational agriculture. (36)
3. Development of good sportsmanship thru friendly competition. Satisfaction of competitive spirit and sporting activity. (22)

4. Developments of rural leadership: (19)

5. Publicity for vocational agriculture. (16)

6. Stimulation of interest in the mastery of farm skills. (15)

7. Improvement of livestock and crops thru better selection. (15)

8. Development of the exercise of good judgment. (12)

9. To provide realistic learning situations. (12)

10. Recognition and award of unusual ability and achievement among individuals and groups. (8)

11. Development of co-operative spirit. Ability of boys to work together for a common purpose. (6)

12. Development of confidence (pride of achievement) of farm boys in themselves. Satisfaction to a boy that he is able to compete with the best. (7)

13. Means of measuring present teaching methods. Comparison of work of teachers with work of teachers in other schools. (7)

14. To provide recreation in vocational agriculture. Add glamour and excitement. (4)

15. Development of managerial ability. (3)

16. Training (thru grade classification of livestock and other farm products) to determine and provide better marketing conditions. (3)

17. To aid in educational and vocational guidance of students. (1)

18. Improvement of rural communities. (1)

19. Stimulation of instructor. (1)

### State Events Successfully Used in Fulfilling Educational Objectives

(Listed in order of popularity)

1. Public Speaking (32)
2. Crops Judging (32)
3. Livestock Judging (31)
4. Farm Mechanics Contest (19)
5. Dairy Judging (17)
6. Poultry Judging (15)
7. Crops Identification (14)
8. Crops Management (13)
9. Weed Identification (11)
10. Chapter Achievement Contest (10)
11. Dairy Products Judging (10)
12. Babcock Testing (7)
13. Livestock Management (7)
14. Parliamentary Procedure Contest (9)
15. Farm Management Contests (6)
16. Dairy Management (6)
17. Grain Grading (5)
18. Shop Skills Demonstration (4)
19. Egg Grading (4)
20. Banquet (2)
21. Fruit Judging (2)
22. Meat Identification (2)
23. Meat Judging (2)
24. Impromptu Speaking (2)
25. Farm Problems Contest (2)
26. Tool Identification (1)

27. Egg Show (1)
28. F.F.A. Quartette (1)
29. Selecting Dairy Cows for Farm Herd (1)
30. Livestock Demonstration Contest (1)
31. Community Dairy Improvement Contest (1)
32. Farming Achievement Contest (1)
33. Farm Engineering (1)
34. Forum Discussion (1)
35. Vegetable Judging (1)
36. Sheep Shearing (1)
37. Inter-Chapter Athletic Contests (1)
38. Inter-Chapter Pest Eradication (1)
39. F.F.A. Fat Stock Show and Marketing School (1)
40. Livestock Loss Prevention Contest. (1)
41. Poultry Show and Marketing School (1)
42. Dairy Show and Marketing School (1)
43. Community Development Contest (1)
44. Arc and Acetylene Welding Contest (1)
45. Agricultural Essay Contest (1)

### Other Proposed Contests to Fulfill Objectives

(Listed in order of popularity)

1. Farm shop skills (14)
2. Parliamentary Procedure (conduct of F.F.A. meetings) (9)
3. Farm Management Problems (8)
4. Market Grades of Livestock (7)
5. Livestock Management (7)
6. Dairy Cattle Judging Stressing Production and Pedigrees (3)
7. Crops Improvement Contest (4)
8. Selection of Feeder Cattle (2)
9. Impromptu Speaking (2)
10. Achievement Awards. Pastures, Home Beautification, Soil Conservation, etc. Farm Mechanics, etc. (2)
11. Farming Program Records (2)
12. Organized Educational Trips to Places of Agricultural Interest in City and Surrounding Communities (2)
13. Farm Financing Questions (1)
14. Grain Grading (1)
15. Weed Identification (1)
16. Leadership Demonstrations (1)
17. National Policies (1)
18. Livestock Improvement (1)
19. Sheep Shearing (1)
20. Egg Grading (1)
21. Panel Discussion ("How F.F.A. Develops Leadership") (1)
22. Demonstration or Dramatization in Co-operation with Home Economics ("Everyday Courtesy" or "Good Manners and Good Form") (1)
23. Panel Discussion with Home Economics ("Development of Joint Programs or Projects") (1)
24. Co-operative Solving of a Problem (1)
25. Tool and Equipment Identification (1)
26. Merit Awards for Vocational Agriculture Departments, based on cumulative activities in home community (1)
27. F.F.A. Reporters Contest (1)



## Student Mortality

(Continued from page 133)

agriculture, however, the indicated mortality is too high for the state as a whole.

### Mortality Between Grades

Between which grades was mortality highest? The answer may throw some light on the causes of mortality. Table II shows that the highest mortality in terms of percentage of the preceding grade was between the tenth and the eleventh grades where mortality was 23.6 percent. Between the eleventh and the twelfth grades the loss in enrollment was 21.5 percent of the eleventh grade enrollment. The lowest loss was between the ninth and the tenth grades where it was 16.7 percent of the ninth grade enrollment. Included in Table II are figures on the percentage losses between grades for other boys. These figures are presented not because they bear particularly on the figures pertaining to agriculture boys, but because they may satisfy a curiosity which is natural enough due to the several comparisons already made between the two classes of students.

Five boys out of six who entered vocational agriculture in the ninth grade enrolled in vocational agriculture in the tenth grade. Slightly more than three-fourths of tenth-grade students in vocational agriculture enrolled in vocational agriculture in the eleventh grade, and slightly less than four-fifths of the eleventh-grade students in vocational agriculture enrolled in vocational agriculture in the twelfth grade. These figures suggest that the forces affecting mortality in vocational agriculture enrollment operate most effectively after the tenth grade.

Of the 189 departments studied, 46, or 24 percent, had a greater percentage of agriculture boys in the twelfth grade than of other boys. Six of these 46 departments were in schools having an enrollment of less than 100 boys, comprising roughly one-third of the number of schools of this size. Twenty-eight of these 46 departments were in schools having an enrollment of 101 to 200 boys, comprising exactly one-third of the number of such schools. Eight were in schools having enrollments of 201 to 300 boys, comprising approximately one-sixth of the number of schools of this size. Only four of these 46 departments were in schools having an enrollment of more than 300 boys, comprising approximately one-ninth of the number of schools of this size.

Thus it may be said that approximately 25 percent of the schools having departments of vocational agriculture have a lower mortality in agriculture boys than in other boys. A higher percentage of small schools than large schools have a lower mortality in enrollment in vocational agriculture than in other boy enrollment.

### Effect of the District on Mortality

**EDITOR'S NOTE**—This factor was fully explored by Mr. Duck. Since the findings are of little value outside of Missouri the editor omits them to conserve space.

### Effect of Size of School on Mortality

Teachers of vocational agriculture tell the author that it is more difficult to hold

the enrollment in vocational agriculture in large schools than in small schools. Other teachers have expressed the opposite belief. With these points in mind, the departments were grouped according to the number of boys enrolled in the schools for the two years covering this study. These groupings were: Group I, under 100 boys; Group II, 101-200; Group III, 201-300; Group IV, over 300.

Of the 189 departments, 20 were in Group I, and in these, 19.5 percent of the agriculture boys were in the twelfth grade. In Group II, 18.8 percent of the agriculture boys were in the twelfth grade, while in Groups III and IV, 15.6 percent and 17.9 percent respectively, of the agriculture boys were in the twelfth grade. A study of the enrollment in agriculture by districts fails to show a definite relationship between the size of the school and the enrollment in agriculture in the twelfth grade. Due to the small number of departments in Group I, enrollment in this group by districts will not be considered.

Summarizing the ranking of the six geographical districts, it is found that Group III is last in four of the six districts, and that Group II did not rank in any district. However, the percentages of agriculture boys in the twelfth grade differ only slightly in the four groups, excepting Group III, in which it is low enough to receive consideration.

Therefore, the effect of the size of the school on the loss of enrollment in vocational agriculture is not an important factor, altho it may be said that departments in the smaller schools have a somewhat lower mortality than departments in the larger schools. An exception to this is that departments in schools with an enrollment of 201 to 300 all boys (covering the enrollment of two years), have a higher mortality than departments in both smaller and larger schools.

### Conclusions

From a study of the data presented in this article, the author makes these conclusions:

1. The mortality in enrollment in vocational agriculture is higher than it should be in view of the commonly accepted aims and objectives of vocational agriculture.

2. Not more than 50 percent of the departments held as many as could be expected of their ninth grade boys to the twelfth grade.

3. The districts of the state offering the greater opportunities in farming have a lower mortality than those districts offering fewer opportunities in farming.

4. On the whole, departments in the smaller schools have a lower mortality than departments in the larger schools.

5. It cannot be concluded from this study that mortality in the enrollment in vocational agriculture is higher than it is in other courses offered by the high school.

6. There are probably many factors in addition to the district and the size of the school that affect mortality in the enrollment in vocational agriculture.

### Implications of the Study

Implications that may be made from this study of enrollment in vocational agriculture in Missouri are:

1. The course of study for students of vocational agriculture needs to be re-

examined, especially in the Ozark and Southeast districts.

2. Since the teacher is probably an important factor in keeping farm boys in vocational agriculture four years, the recruiting and pre-service training of teachers plays an important part in maintaining enrollment.

3. The in-service training of teachers of vocational agriculture needs to be re-examined.

4. The various curricula set up by the State Department of Education for high schools should be examined to see if they affect the enrollment in vocational agriculture, and, if so, what changes should be made.

5. Courses of study for Agriculture III and IV should be re-examined to discover if they challenge the interest and best efforts of the students.

6. Teachers may need more materials, more technical knowledge, and improved methods in teaching vocational agriculture III and IV.

7. The training of teachers as advisers of F.F.A. chapters may need more emphasis.

## Tipton Chapter Orders Phosphate

THE Tipton, Iowa, F.F.A. Chapter has ordered two freight cars of phosphate, about 65 tons, which will be delivered in Tipton this fall and winter.

One car, to be delivered in October, will consist of 30 tons of 20-percent superphosphate. F.F.A. members are in the process of contacting farmers and enabling them to purchase the material co-operatively. Individual farmers have given orders all the way from one 80 lb. bag to several tons. They will come to the car and get their own phosphate when it arrives. The other car will be a 40-ton car of rock phosphate which will arrive in Tipton in February, 1945.

The purpose of the project is to get farmers interested in applying phosphate on their legume seedings and pastures. Tests indicate that phosphate is very beneficial when used locally for such purposes.

As a further service in using phosphate, the chapter has ordered a phosphate spreader which will also be delivered in February, 1945. This spreader will be rented out to farmers for a small charge. The spreader has free wheeling, pneumatic tires, telescopic hitch, and can be adjusted to spread as light as 100 pounds per acre or as heavy as 8,000 pounds per acre. The adviser is J. Morris Christy.

There is no progress in the world without hard work, and as a rule work is the best measure of a people's progress. Leisure is always hazardous to civilization. When any people get to the point that the necessity is no longer upon them to engage in regular work, they are apt to fall back and gradually decline.

We are not sent into this world to do anything into which we can not put our hearts. We have certain work to do for our bread, and this is to be done strenuously; other work to do for our delight, and that is to be done heartily; neither is to be done by halves or shifts, but with a will; and what is not worth this effort is not to be done at all.—John Ruskin.

# Future Farmers of America

A. W. TENNEY

## The Future Farmers of America Foundation, Incorporated

W. T. SPANTON, Chief, Agricultural Education Service, U. S. Office of Education, Washington, D. C.

THE Future Farmers of America, the national organization of farm boys who are studying vocational agriculture in the public schools, was organized in the old Baltimore Hotel at Kansas City, Missouri, in the fall of 1928 and was incorporated that same year under the laws of the State of Virginia. Since that time the organization has grown until it is now recognized as the largest farm boy organization in the world. Similar Future Farmer organizations have since been established in many foreign countries, including Albania, Greece, and Colombia, South America.

Accompanying the healthy growth of the F.F.A. there has been thru the years an ever-increasing number of corporations and business concerns which have become enthusiastic supporters of the organization. Many commercial concerns have co-operated by providing very substantial prizes and awards for deserving students of vocational agriculture and members of the Future Farmers of America and the New Farmers of America who have achieved most in various competitive vocational agriculture and farming activities. They recognize the interdependence of agriculture and business and realize that business and industry cannot prosper indefinitely without a successful agriculture. Consequently anything they can do to assist in the development of better trained and more proficient farmers is simply a good business investment.

Very appropriately the first contribution to the treasury of the Foundation has been made by a farm paper of nationwide circulation, "The Country Gentleman" thru the Curtis Publishing Company of Philadelphia, Pennsylvania. In like manner the first large contribution to the Foundation to be made by any corporation has just been received from the International Harvester Company of Chicago. Very substantial contributions to the Foundation from many other corporations and business concerns are anticipated within the next few months.

It is contemplated that one of the major functions of the Foundation will be that of assisting deserving students or former students of vocational agriculture under 30 years of age in becoming established in a farming occupation. This will be accomplished thru the building up of an insured or guaranteed loan fund which the Foundation, thru its treasury, would utilize as a sort of collateral to deserving students or former students of vocational agriculture who need such a loan, can prove that they are a good moral risk, and who have the recommendation of responsible local citizens and the state supervisor of agricultural education. No outright loans would be made by the Foundation but instead the boy or young



Dr. W. T. Spanton

farmer would secure his loan thru regularly established loan agencies such as local banks or loan companies, Farm Credit Administration, etc. Foundation funds would be used only to guarantee payment of the loan and to pay for any defaults that may occur. Complete details have not yet been developed but such a plan should have three distinct advantages: First, it should result in some boys who are good moral risks but who have little or no collateral being able to secure a loan who might not otherwise be able to secure any loan at all; second, he should be able to secure a larger loan than otherwise; and third, he should be able to secure his loan at a much lower interest rate.

The management of the affairs of the Foundation will be vested in a Board of Trustees of 15 members, six from the staff of the Agricultural Education Service of the U. S. Office of Education and nine from the states. While representatives of corporations or business concerns who are donors to the Foundation may not serve on the Board of Trustees of the Foundation, they will be requested to serve on advisory committees to the Board of Trustees. Since vocational education in agriculture is an integral part of public school systems and since the public school is generally regarded as one of the most sacred of American institutions, it is believed that the Future Farmers of America Foundation, Incorporated, is one of the safest and most practical methods for the building and maintaining of sound public relations with all



George Bowman, of Bakersfield, California, president of the Future Farmers of America, greets Secretary of Agriculture Claude R. Wickard on his arrival at Kansas City, Missouri, to speak at the organization's national convention

corporations and business concerns which wish to make substantial contributions on a nationwide basis, for the further promotion of vocational education in agriculture, and activities of the Future Farmers of America and New Farmers of America. No concerted campaign is to be conducted by the Foundation to secure contributions to its treasury but more complete and detailed information concerning it will be given gladly to all interested persons.

This co-operation and unselfish support of vocational agriculture on the part of business and industry has always been and still is deeply appreciated by the farm boys who have received prizes and awards in recognition of their achievements as well as by their local, state, and national teachers, supervisors, and leaders.

In view of the increasing numbers of corporations and business concerns which have expressed a desire during the past two years to co-operate, and since most state supervisors are agreed that very few, if any, additional contests for students of vocational agriculture should be encouraged, the Future Farmers of America Foundation has been incorporated. This has been done in order to make it possible for all organizations, corporations, and business concerns who wish to co-operate, to do so without the necessity of establishing additional types of contests, or individually sponsoring on

(Continued on page 138)

## The Kentucky Future Farmers Co-operative, Incorporated

W. R. TABB, University of Kentucky, Lexington

**K**ENTUCKY Future Farmers have the opportunity to learn the "co-operative way" of doing business and solving some of their farming problems thru their own state-wide co-operative association, "The Kentucky Future Farmers Co-operative, Incorporated."



W. R. Tabb

Future Farmers and their advisers are justly proud of the record their association made during its first business year which, in brief, is as follows:

1. A membership of 154 chapters, each owning a \$10 share of common stock.
2. The issuing of \$4,530 of preferred stock, mostly to member chapters and the Kentucky association of F.F.A.
3. Doing \$127,390 worth of business with the member chapters.
4. Paying a dividend of 5 percent on the preferred stock.
5. Setting aside an allocated reserve of \$1,200.
6. Paying \$619 in patronage dividends to the members.
7. Borrowing and repaying loans totaling \$51,450.
8. Assisting members in securing 2,723 breeding ewes, 1,327 breeding beef heifers, 291 feeder steer calves, and 142 dairy calves.

### How the Co-operative Came About

Like all functioning co-operatives, the Future Farmers Co-operative was organized to meet a felt need of the members. For the past several years Kentucky Future Farmers have been buying high-grade beef breeding heifers, feeder steers, and crossbred ewes from the western range country. The need for a business organization to aid in securing this livestock had been apparent for some time. The "co-operative way" was decided upon as being the best way to meet this need and at the same time provide a way of meeting other needs as they arose. In addition, the advisers were enthusiastic about such an association as a practical means of teaching co-operation.

Getting the association organized is a long story but, with the competent and enthusiastic aid of the officials and legal staff of the Louisville Bank For Co-operatives, the Articles of Incorporation and By-Laws were adopted and the association incorporated under the co-operative marketing laws of Kentucky, in March, 1943.

### How the Co-operative Is Organized

The Co-op is a capital-stock association with membership limited to Future Farmer chapters that own a \$10 share of common stock. Preferred stock, also \$10 a share, is nonvoting stock and may be owned by anyone. A total of \$15,000 of common and preferred stock is authorized and printed.

The control of the association is vested in a board of nine directors, one representing each of the nine District Federations. The directors are chapter advisers, as directors must be of legal age. An advisory committee of one Future Farmer from each of the Federations meets with the board of directors and discusses freely the problems and issues before the board. The board of directors has an Executive Committee of three members to facilitate the handling of business.

Under the control of the board of directors, the business of the association is conducted by a manager, an associate purchasing agent (both members of the state staff), and a part-time bookkeeper. The manager is also the treasurer and is bonded by the association by a \$10,000 commercial bond.

Once a year a meeting is held at the time of the state F.F.A. meeting. At the annual meeting, each member chapter is represented by one Future Farmer and his adviser, seated together. The Board of Directors and Advisory Committee are elected at the annual meeting and other business is transacted. In addition to the business of the annual meeting a program of co-operative work is arranged.

### How the Co-operative Transacts Its Business

The business done by the association has been limited to aiding member chapters in securing beef cattle, dairy cattle, sheep, and phenothiazine for use by boys in their farming programs. Other services are under consideration, including the purchasing of certified seed and the operation of a hatchery. It is likely that the association will assist in the marketing of farm products as needs become apparent.

The purchasing of beef heifer calves is a good illustration of how the association operates. In the late summer the chapters are asked to place orders with the Co-op for the number of choice-quality beef heifer calves each chapter needs for its members. A purchasing agreement is drawn up between the chapter and the Co-op. Chapter orders for less than a carload are pooled so that two or more chapters can get a carload at a central point. When sufficient orders have been received, the association sets about to con-



A carload of choice quality beef heifers purchased by the Crofton Chapter thru the State F.F.A. Co-operative to be used by members in their farming programs

tract for the calves. A representative of the Co-op (in the case of beef cattle, the Associate Purchasing Agent) contacts sources of supply and usually goes to the range country to make the contracts. Down payments of approximately \$5.00 per head are made to bind the contracts, and carloads are ordered shipped to designated points of destination.

The Co-operative finances the contracting down payment and pays the seller for the calves and the shipping costs to the chapters. When the chapter receives its calves, it distributes them to its members and collects the total cost of the calves. Time is allowed for the boys to complete arrangements for financing their projects thru loans. The time allowed the chapter to remit to the Co-op is specified on the purchasing agreement and is usually about two weeks.

For services rendered, the Co-op charges the chapter one dollar per head on beef calves. This Co-op "fee" is the association's means of meeting administrative expenses and making earnings to pay dividends on stock, build up a reserve, and pay patronage dividends.

### The Objectives of the Co-operative

Chapter advisers and the state staff hope to achieve two major objectives thru the Co-op:

1. Provide desirable educational experiences for Future Farmers in co-operative activities.
2. Provide desirable means of aiding Future Farmers in getting things they need for their farming programs and perhaps aiding them in marketing products produced in farming programs.

Even within the short time the Co-op



The Taylor County Chapter F.F.A. receives 95 black faced, crossbred yearling ewes from a carload shipped to the nearby chapter of St. Charles



has been in operation, many Kentucky Future Farmers have learned much about how a co-operative association is set up, financed, operated, and managed. If it continues to succeed and meet some of their needs, they should soon begin to believe more strongly in the co-operative way of doing things. Some of the more specific educational objectives that may be reached thru co-operative experiences are being defined.

In Kentucky more boys get more good livestock when they buy co-operatively than when each boy is left to shift for himself. The Co-operative is giving strength to the supervised farming programs.

#### About the Future

Many farm leaders believe that the greatest advancement in American agriculture in the next 25 years will be in the field of co-operative endeavor—farmer-owned and farmer-controlled co-operatives to aid in the following:

1. Marketing, including some processing, of farm products so that the farmer may realize a greater share of the consumer's dollar.

2. Purchasing of farm-production supplies. Farming is the only great industry that buys its production supplies at retail.

3. Co-operative ownership (by small farmers) of good farm machinery and equipment.

4. Furnishing of farm credit. Many people feel that there is little reason for the government to subsidize farm credit a great while longer.

5. Investment of farmer capital in farm co-operative associations. Farming is the business that farmers know best. Buying stock in farm business associations should prove a much sounder investment than becoming a stockholder in an industrial concern.

If these are to be trends in the future, young men entering farming should be proficient in co-operative activities. One of the purposes of the F.F.A. is "to encourage co-operative effort among students of vocational education in agriculture."

### F.F.A. Foundation

(Continued from page 136)

a nationwide basis any activities which might sooner or later result in criticism.

The Future Farmers of America Foundation was incorporated under the laws of the District of Columbia on March 29, 1944. The Certificate of Incorporation, By-Laws, Administrative Policies, and Proposed Foundation Awards have been widely discussed and reviewed by leaders in agricultural education and as finally revised and adopted by the Board of Trustees at a special meeting in Kansas City, Missouri, on October 7, 1944, the Foundation now has the wholehearted support of state supervisors of agricultural education throughout the country.

As stated in Article IV of the Certificate of Incorporation—

"The objects and purposes of the Future Farmers of America Foundation, Incorporated, are to receive, maintain and hold, by request, devise, gift, or otherwise, either absolutely or in trust, for any of its purposes, any property, real or personal, fund or funds, without limitation as to amount or value; to

convey such property and to invest and reinvest any principal; and to deal with and expend the income and/or principal of the Corporation for such educational activities and in such manner as in the judgment of the Board of Trustees will stimulate and promote the best interests of students and former students of vocational education in agriculture on a local, state, or national basis. As an amplification of said purposes and without in any way limiting the same or the discretion of the Board of Trustees, it is contemplated that said funds may be expended:

"(a) To financially assist deserving students of vocational agriculture, young farmers under 30 years of age who were former students of vocational agriculture, thru loans or grants, in becoming satisfactorily established in a farming occupation;

"(b) To promote and stimulate interest in agricultural leadership among students of vocational agriculture;

"(c) To promote and develop interest on the part of the general public in vocational agriculture, including farm mechanics, and activities of the Future Farmers of America and New Farmers of America;

"(d) To provide prizes and awards to deserving students who have achieved distinction in vocational agriculture, including farm mechanics activities, on a local, state, or national basis, and to administer, direct, or supervise the granting of same."

While all contributions to the Foundation shall, in accordance with the provisions of the approved Administrative Policies, "be used exclusively for the purposes specified in Article IV of the Certificate of Incorporation of the Foundation without any reservations, limitations, or restrictions by the donors" and "Donors will not be identified with any specific Foundation prizes, awards or activities," it is believed that in the long run, a much better balanced training program in vocational agriculture can be maintained than would be true if specific types of projects, contests, or activities were selected by Foundation donors with which they would be identified. Thru the pooling of funds in the Foundation, more adequate awards can be made with less administrative detail and in addition each donor will receive recognition for all Foundation awards, rather than for one specific project or activity in which his organization or business concern may have, because of the nature of their business, a selfish interest.

It is contemplated that wide publicity will be given to all Foundation awards or activities, together with proper appreciation and recognition to all sustaining donors. In addition, each sustaining donor should feel free to inform the public thru educational bulletins, the press, films and film strips, and the radio of his sympathy with and support of the Foundation.

Never watch others unless you are prompted by the desire to find something to applaud.

Nothing will ever be attempted if all possible objections must first be overcome.—Dr. Samuel Johnson.

### BANQUET BANTER

Toastmaster: This has been great evening. We have heard various activities and accomplishments of department presented and I am sure, from your reception, you have been pleased with review. Think it most appropriate, therefore, that we present for few remarks man who is responsible for these achievements—our teacher of agriculture. We know him as cool and calm under fire, but want to tell you when he was under backfire. I hear that during college he called at home of his college professor one day during Christmas vacation, chatted a while; then, seeing their small baby, said he wondered how it seemed to carry a baby and asked for privilege. The day was cold, too cold in fact, but they told him to wrap baby well. So he lay shawl on table, then baby, wrapped it up, put on his overcoat and hat and out he went, parcel in arms. Not so long afterwards they saw him coming back in quick step. Having had experience with babies, they, of course, surmised the situation as no doubt you parents do, but no, he was smiling. As he entered he burst out laughing and said he showed the baby to old lady and she looked up and said, "Looks just like its father, doesn't it?" And how he laughed! Altho the parents had no hopes the little thing would win a beauty contest, still they didn't think she looked that bad. The wife and mother was disconsolate, so the professor took "Prof." into next room and sat down to visit. Meantime, the mother took charge of baby. As she unwrapped it she soon changed her look and even smiled. The father hurriedly stepped out and what do you suppose he saw? "Prof." had been carrying the baby upside down. How about it, "Prof?"

Speaker: Young man, you asked for it and you are going to get it—both barrels—so start running and with both legs. Ladies and gentlemen, fellow can't grow old with youngsters like John around keeping rough corners rubbed off. I enjoy it but wish they would all stay by the truth little better. Of course, this is easy for me to do. I want to tell you about the first time I took the T.M. to Columbus to our State Judging Contest. You know I always take the boys to the Deshler Hotel, the best in town, where they may have experience of staying in ultra-modern hotel. For T.M. it was a great experience; so many new features, great deep springs and soft thick mattress on the bed and, as John called it, "The washroom next door." Said there was nothing like that on old home farm. I left John and Edward for night—don't know when they got to bed. Next morning I stopped and called them, told them to dress and would wait for them in lobby. I waited and waited. Was about to go to their room when boys finally came—Edward neatly groomed as usual but John flushed in face and somewhat disheveled. I couldn't imagine what could have happened to cause contrast. Most unusual. I asked poor freshman what his apparent troubles were, if the accommodations in his room were not satisfactory. He said that Ed, the big stiff, got up first and used the big washbowl and that the one left for him was so low he had to get down on his knees to wash and the lid kept hitting him on his head.

